What Makes Electronic Mentoring Effective?

In disciplines with few experienced women available to serve as mentors, electronic mentoring, or "e-mentoring," enables same-sex mentoring of many more women than face-to-face mentoring would permit. It also benefits K-12 students through improved teamwork, critical thinking skills, integration of knowledge across subject areas, self-directed learning, and writing skills.

E-mentoring is mentoring via electronic communication. Structured e-mentoring programs include the components of formal mentoring programs, but the medium extends the benefits of mentoring to a wider audience. It removes the constraints of time and location, enables thoughtful, deliberate communication, and provides a useful record of that communication. E-mentoring also can limit status differences that might inhibit communication between protégées and mentors.

Problems can arise from technology failures or loss of email addresses, but these can be resolved with technical support or help from the e-mentoring program administrator. Other difficulties that may be inherent in e-mentoring are related to communication via a computer. There can be increased miscommunication due to the absence of non-verbal cues from body language and tone of voice, and lower inhibitions about venting anger or frustration. These problems can be mitigated through participant training and education. Even so, a prominent e-mentoring researcher, Judi Harris, encourages use of e-mentoring only when face-to-face mentoring is not viable.

Important ingredients for successful e-mentoring programs include: participants having easy and reliable access to the necessary technology and a desire to participate in the program; self-matching or participant approval of a prospective mentoring partner; staff to facilitate and document matching, provide coaching, help maintain contact between mentors and protégées, and respond to questions; multiple methods of contact between pairs for better mentoring relationships; and protection of participants' confidentiality.

WHAT IS MENTORING?

Mentoring occurs when an experienced person serves as a trusted counselor, teacher, and advocate to an inexperienced protégé. Mentoring usually happens on a personal level in the context of a relationship that develops over time, in contrast to the more remote and one-dimensional role modeling. Mentoring may combine affective support, such as offering a sympathetic ear, with instruction in professional behavior and tasks. It includes actions such as sponsoring, coaching, acquiring resources, and providing exposure and protection to the protégé.

Formal mentoring programs usually have several components. They match mentors with protégés, offer events or activities to develop mentoring relationships, provide resources and instruction for achieving the desired outcomes, and evaluate results for participants and the organization. Effective mentoring programs are carefully planned, with attention to specifying, communicating, and measuring objectives, and developing sufficient resources to implement fully.

Mentoring programs most commonly fail due to unanticipated high costs of operations; usually time costs for program facilitation are severely under-estimated. Although mentoring is not always a positive experience, it usually enhances career commitment for men and women, including women in male-dominated fields such as IT. Benefits include more rapid career advancement and career satisfaction, as well as enhanced academic self-confidence of women in disciplines where the majority of faculty members are men. Both same-sex mentoring and mixed-sex mentoring are effective, although participants may find same-sex mentoring more comfortable.

RESOURCES

Single, P. B. & Single, R. M. (2005). E-mentoring for social equity: review of research to inform program development. *Mentoring & Tutoring: Partnership in Learning, 13*(2), 301-320.

Single, P. B., & Muller, C. B. (2001). When email and mentoring unite: The implementation of a nationwide mentoring program. http://www.uvm.edu/~pbsingle/pdf/2001_ADTD_chpt.pdf

MentorNet – www.MentorNet.net (Case Study 1)
An Example of Effective Electronic Mentoring

| 🏛 **Undergraduate** | 🎓 **Graduate** | 💼 **Career** |

MentorNet is an award-winning nonprofit e-mentoring network for diversity in engineering and science. By working through a consortium of organizations, MentorNet pairs undergraduate and graduate students, post-docs, and early career faculty in STEM fields with professionals in industry, government, and higher education. These mentoring pairs establish email-based, one-on-one mentoring relationships that last eight or more months. More than 14,000 pairs of protégés and mentors have been matched through MentorNet's One-on-One programs.

Mentoring pairs typically communicate two or three times per month via email. The most satisfied pairs agree in advance about frequency of communication and what to do if re-connection becomes necessary. Mentors are recruited internally by MentorNet corporate and government sponsors, by email from professional societies to their members, and through conference exhibits, publications, former participants, and word-of-mouth. Protégées are recruited by faculty members, on-campus professional societies, school publications, former participating students, and campus representatives who forward information about MentorNet to students. Eligible prospective participants review program information online, and then may complete online profiles with information about their fields of interest, background and demographic characteristics, topics of primary interest or concern, and preferred or required characteristics of the person with whom they wish to be matched. Protégées may choose their mentor or matching is done automatically.

Training materials, coaching, and consulting are available online. The training materials include information about mentoring, the differences between electronic communication and in-person communication, netiquette, diversity in mentoring, and questions a mentor may ask a protégée. Also included in the training materials is an interactive set of case studies for practice addressing issues that can arise in an e-mentoring relationship. Coaching takes the form of regular email messages with discussion or activity suggestions. Consulting offers help with maintaining mentor-protégé contact or any difficulties that arise. In addition to these resources, MentorNet's E-Forum offers a variety of topic-based online discussion groups for exchange of ideas and advice. These forums may be used in conjunction with, or instead of, one-on-one engagement.

EVIDENCE OF EFFECTIVENESS

Careful evaluation of the MentorNet program has been conducted, and is reported online at the program website. Reports document high participant satisfaction, especially among mentors. Seventy percent of mentors and fifty-nine percent of protégées recommended the program to friends; many more said they would recommend it. A strong majority (83%) of protégées indicated that their mentor provided them with support and encouragement, with many (66%) specifying "ideas for balancing personal and professional lives" as a particular type of support provided. More than half of protégées said that their self-confidence increased and they gained understanding of careers and the workplace as a result of their MentorNet experience. Mentors also thought they benefited. They experienced positive feelings from contributing to the next generation, and they learned skills such as how to find their own mentor and recruit talented people to their organization. These self-reports from 40% to 47% of participants, together with the large numbers of participants in MentorNet, suggest that it is a successful program. Solid evidence that this success results from the e-mentoring is not yet available, although further assessment is being considered.

GENERAL PRINCIPLES AND ESSENTIAL INGREDIENTS

Mentoring relationships were more successful when participants spent more time on them, when expectations were communicated up-front and clearly, and when both partners felt the match was a good one—a sentiment promoted by students choosing their own mentor. The mentor-protégée relationship was most satisfying when both participants enjoyed and respected each other. This outcome was more likely when discipline, career path or employer, and personal interests were the same. For e-mentoring to work, participants must be comfortable with email and able to overcome the absence of information that is communicated through body language and eye contact. The most successful mentoring pairs say that it is important to establish early-on common ground beyond their motivation for participating in the program, create a plan for email frequency and what to do when it lags, and spend time composing thoughtful emails.